

METHOD, SYSTEM, AND COMPUTER PROGRAM PRODUCT  
FOR VISIBILITY CULLING OF TERRAIN

ABSTRACT OF THE DISCLOSURE

A method, system, and computer program product are provided for visibility culling of terrain. A height field is perspective modulated. An occlusion height field is generated based on an orthographic height propagation of the perspective modulated height field. Graphics data is culled based on the generated occlusion height field. Texturing and blending operations can be used to accelerate the perspective modulation. A perspective modulation disk is used to modulate the first height field along radial slices from a viewpoint. Texture from a one-dimensional texture with distance values is mapped to the radial slices to obtain the perspective modulated height field. Generating an occlusion height field can also be carried out using texturing and blending and can be hardware-accelerated. According to a further feature, a shift disk or shift texture is used.

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